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RELATED CORRESPONDENCE

January 7, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	Docket Nos. 50-445 and 50-446
TEXAS UTILITIES ELECTRIC COMPANY, ET AL.	)	
	)	(Application for Operating Licenses)
(Comanche Peak Steam Electric Station, Units 1 and 2)	)	

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MOTION FOR RECONSIDERATION OF LICENSING BOARD'S MEMORANDUM (REOPENING DISCOVERY; MISLEADING STATEMENT)

I. INTRODUCTION

Applicants are deeply disturbed by the serious charges that the Board has leveled against Applicants and their witnesses in its December 18, 1984, Memorandum (Reopening Discovery; Misleading Statement).[1] The Board's reopening of unlimited discovery on any "representations of Texas Utilities Electric Company, et al. in this proceeding" is largely founded on misinterpretations of the record and premature conclusions regarding matters not yet adjudicated on the merits. Many of the Board's findings on which its decision is based improperly compromise Applicants' right to a fair hearing. Further, the Board Memorandum unfairly exposes Applicants to yet additional discovery burdens and creates unwarranted delay in the proceeding. Accordingly, Applicants request that the Board

1 The Memorandum also included an order reopening discovery in the proceeding.

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withdraw much of its Memorandum and revise its decision to grant unlimited discovery.[2]

II. BACKGROUND

By Memorandum and Order of October 18, 1984, the Atomic Safety and Licensing Board ("Board") ordered that Texas Utilities Electric Company, et al. ("Applicants") provide the Board with the raw data supporting Table 2 of the Affidavit of Robert C. Iotti and John C. Finneran, Jr. ("Affidavit of Iotti and Finneran") appended to Applicants' Motion for Summary Disposition of CASE's Allegations Regarding Cinching Down of U-Bolts (June 29, 1984) ("Applicants' Motion"). On October 23, Applicants responded.[3]

On November 5, 1984, CASE filed a motion which alleged that Applicants' October 23 response to the Board, when viewed in conjunction with other statements by Applicants, reflected (1) a deliberate attempt by Applicants to mislead the Board and (2) a material false statement. Based on these allegations, CASE moved that the Board, inter alia, reopen discovery.

On November 19, 1984, Applicants responded opposing CASE's motion. In its December 7, 1984, response, the NRC Staff did not

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2 The Board Chairman orally granted Applicants' request to file this motion at this time.

3 Subsequently, by Memorandum of October 24, 1984, the Board clarified its request and ordered Applicants to provide copies of the actual sheets upon which the raw data was recorded as well as the procedure used for collecting the data. On November 9, Applicants provided such information in the form of an Affidavit of John C. Finneran, Jr.

express a conclusion regarding the accuracy of Applicants' statements,[4] but supported CASE's request for additional discovery "on the nature of random or representative samples relied upon by Applicants to support Applicants' summary disposition motions or responses to Staff questions." NRC Staff Response to CASE's Motions and CASE's Answer to Applicants' Response to Board Request for Information Regarding Cinched-Down U-Bolts ("Staff Response") at 7.

On October 25, 1984, the Board issued a Memorandum (Information on Composition of A36 and A307 Steel). Therein the Board inquired into the representativeness of certain materials employed by Applicants in tests performed in connection with Applicants' motions for summary disposition. Applicants filed "Applicants' Response to Board Memorandum (Information on Composition of A36 and A307 Steel)"("Applicants' Response"), supported by an affidavit of Dr. Iotti and Mr. Finneran, on December 5, 1984. The Board did not request additional information regarding this matter after receiving Applicants' Response.

By Memorandum of December 18, 1984, the Board ruled that based on its view of testimony regarding (1) cinched down U-bolts, (2) A36 and A307 Steel, (3) AWS/ASME requirements and other representations of Applicants,

> "CASE and the Staff may undertake additional discovery concerning samples, testing or any

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4 The Staff referred the matter to the Office of Inspection and Enforcement to determine whether a material false statement had been made. Staff Response at 6.

> other aspect of testimony whose credibility they now decide to investigate within the time limits imposed in the accompanying Order. We also invite Applicants to review their own testimony and to disclose all their errors in the course of this proceeding (or the related docket) in a single filing together with explanations." Memorandum at 9.

Applicants have nothing to hide and welcome responsible inquiries into the basis for their testimony. However, based upon the discussion that follows, Applicants submit that a fair reading of the record demonstrates that if discovery is to be reopened at all, it should be limited to the adequacy of the sampling relied on in Applicants' motions for summary disposition. Further, Applicants submit that the schedule adopted in the Board's ruling for concluding discovery should be revised.

III. APPLICANTS' MOTION

A. General

Applicants agree with the Board that in one area (A36/A307 steel), aspects of our previous testimony require correction which we submit in this pleading. Further, Applicants intend to undertake measures to provide assurance regarding the accuracy of other aspects of our testimony. However, we do not agree that this matter supports the reopening of unlimited discovery. In addition, the balance of the Board's findings on which it based its decision to reopen discovery are unfounded. In large measure the Board's conclusions are not supported by, and in many instances are

directly contrary to, the material on which it relies in its Memorandum. Applicants explain each of those errors below.

Further, many of the Board's comments suggest the Board has already drawn final conclusions regarding matters yet to be adjudicated on the merits. The implications for the future conduct of a fair hearing are obvious. Applicants assume that the Board did not intend to suggest it has prejudged those questions prior to receiving all relevant evidence. Accordingly, we ask that the Board clarify and correct, as appropriate, its comments. Finally, we address the unfairness of reopening unlimited discovery until February 21, 1985. In sum, we ask that the Board modify its Memorandum by withdrawing erroneous aspects and by limiting reopened discovery both in scope and time.

B. Survey of Torques of Cinched Down U-Bolts

The Board's concern regarding this issue relates to a sampling of the torques of cinched down U-bolts at CPSES taken by Applicants to provide an indication of what torque values may be expected in the field in order to reasonably set some parameters for the U-bolt testing program discussed in Applicants' motion for summary disposition regarding this issue. Affidavit of J.C. Finneran, Jr. at 2 attached to Applicants' November 9, 1984 Response to Board Request for Raw Data Regarding Cinching Down U-Bolts ("Finneran Affidavit of November 9, 1984"). With regard to this sample, Applicants stated that the U-bolts sampled were "a

randomly selected representative sample of cinched down U-bolt supports." Affidavit of Iotti and Finneran at 10.

In its Memorandum, the Board states that both CASE and the Staff agree that this statement is false. Memorandum at 1. Further, the Board states that it "appears . . . that there is no sense in which the sample was representative or random." Memorandum at 2. The Board lists five reasons in support of its conclusion (Memorandum at 2-4):

(1) the sample was taken with no written procedures;

(2) there was "no method of drawing a random or representative sample;"

(3) it was "allegedly" impossible to obtain a "relevant" sample from Unit 1 because it had been painted;

(4) the sample reported by Applicants used the average torque value of the two bolts on each U-bolt instead of the actual torque on each bolt; and

(5) the U-bolts sampled may have been torqued using construction practices different than those used for torquing Unit 1 and common U-bolts.

Applicants submit that contrary to the Board's representation, the Staff did not state or agree that Applicants' statement was false. Further, as set forth fully below, Applicants maintain that the five items noted above do not support the Board's conclusion that Applicants' statement is false and warrants reopening of discovery.

Before addressing the five Board concerns, the issue should be placed into perspective. As noted, Applicants conducted a sampling of the torque values of cinched down U-bolts to provide an indication of what torque values may be expected in the field

in order to reasonably set some parameters for the U-bolt testing program. From the wide range of torque values obtained and reported in our June 29, 1984 motion for summary judgment, it was obvious that the torquing practice had not resulted in a narrow range of torque values. While Applicants committed to retorque every cinched down U-bolt on single struts and snubbers to alleviate any safety questions about this issue (Affidavit of Iotti and Finneran at ?4-35), it was Applicants' view that the cinched down U-bolts in the field would not likely have excessive preload and would have been able to support the necessary loads. Id. at 11-13, 34-35, and 75-76. The basis for Applicants' position was not the sampling, but rather (1) the relaxation characteristic of the material used which would provide a reasonable upper bound on U-bolt preload values and (2) the characteristic of U-bolts at very low preload values to carry loads even if not stable in the truest sense.[5] Id. In short, the torque sampling at issue here was not reported to demonstrate that work in the field was acceptable or that no additional work needed to be done. In this regard, given the decision to retorque, the results of the testing program and finite element analyses were ultimately used only to determine and provide assurance of the acceptability of the torque values to be used in retorquing. In

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5 While Applicants did not attempt to define by test or finite element analysis an absolute minimum level of preload necessary to carry load, it was Applicants' judgment that even at a very low preload value a U-bolt would be capable of supporting the necessary load. Id. at 34. Instead of attempting to confirm this by test, Applicants opted to retorque the affected U-bolts, as noted above.

retrospect, these results could have been obtained without taking a sample. In sum, for the ultimate use of the testing program and finite element analyses, the adequacy of the sampling is moot. Affidavit of Robert C. Iotti and John C. Finneran, Jr. attached hereto at 2 ("Affidavit").

Turning now to the Board's five specific concerns, Applicants submit that the Board's first two concerns (i.e., that the sampling were performed without using written procedures and that there were no statistical analyses performed regarding the sampling[6]) provide no support for a position that the sampling was not sufficiently random or representative for its intended purpose. While Applicants did provide detailed verbal instructions to the individuals collecting the data on the approximately 160 U-bolts checked (see Finneran's Affidavit of November 9, 1984 at 2-3), Applicants did not perform a detailed statistical evaluation and analyses.

However, as the Licensing Board noted in Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-83-57, 18 NRC 445, 619-20 (1983), "the Commission's Quality Assurance Criteria, 10 C.F.R. Part 50, Appendix B, do not require the use of statistical sampling methodology". See Duke Power Company, et al. (Catawba Nuclear Station, Units 1 and 2), ASLBP No. 81-463-06 OL, ___ NRC ___ (slip op. at 13-14, November 27, 1984), wherein the

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6 Applicants assume that the Board's concern expressed regarding the methodology of "drawing" a random or representative sample (item 2) relates to a lack of detailed statistical evaluation and analyses of the sample size and composition.

Licensing Board made the following finding regarding a sample of plant workers conducted without a statistical evaluation and analysis:

> These academic criticisms of the Duke sample might have been more telling if a rigorous scientific study, with calculated standard error deviations and levels of confidence, had been necessary for Duke's purpose. But such a discriminating tool was not required. Unlike, for example, a finely-tuned survey designed to determine divisions of public opinion within, say, a percentage point of accuracy, Duke was conducting a relatively gross analysis. To put it another way, if one is looking for the footprints of foreman override in a nuclear plant work force, one does not need a magnifying glass, only an open eye.

A fortiori, given the purpose of the sampling here (to obtain an indication of the range of torques in the field in order to reasonably set some parameters for the U-bolt test program), such detailed evaluations were not needed or warranted. In short, Applicants maintain that a written sampling plan based on detailed statistical analyses was neither required by NRC Regulations nor warranted to provide results that were adequate for their purpose.

Applicants submit that the Board's third concern (i.e., that because Unit 1 was painted it is "allegedly" impossible "to obtain a relevant sample from Unit 1") also provides no support for the Board's action. If the U-bolts sampled (Unit 2) were identical in make, manufacture and sizes to those in Unit 1, and were torqued with the same construction practices as the U-bolts about which judgments were being rendered (Unit 1), as is the case here (Finneran Affidavit of November 9, 1984 at 3), the sample is

"relevant" and representative. Support for this position is found in the thousands of nationally recognized samples of voters, families, airplanes, streams, lakes, etc. in which valid conclusions are drawn regarding those individuals or items not actually sampled. Further, as Applicants have previously stated, in that Unit 1 had been painted, the only practical source of retrievable information regarding torque ranges was from unpainted U-bolts in Unit 2. Id.

Applicants maintain that the Board's fourth concern 'i.e., Applicants' reporting the average of the torques on the two bolts of each U-bolt sampled, instead of the separate torques of each bolt) also provides no support for its action. Reporting and using the average torque values was appropriate because of the following (Affidavit at 3):

1) the forces on the pipe and the resulting local stresses would be highest at the cross piece to pipe interface and these are determined by the combined tension in the two legs of the U-bolt, i.e., the local pipe stresses are not affected by asymmetry in the leg torques;

2) the "stability" of the configurations depends on the overall frictional resistance at the pipe cross piece and pipe U-bolt interface and this overall resistance is not affected by asymmetry in the leg torques; and

3) the difference in torques between the two legs that can exist in the field is limited[7] and there would be a tendency for any difference to be equalized when the

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7 The limitation in difference occurs because the difference in leg tension must be counterbalanced by the frictional resistance at the cross piece to pipe interface to satisfy moment equalibrium. External loads of a vibratory nature momentarily reduce at each cycle the normal force and hence the frictional resistance at the cross piece to pipe interface. This reduction, in turn, reduces the difference between the unequal tension in the two U-bolt legs. Attached Affidavit of Iotti and Finneran at 3, n.2.

assembly is exposed to vibratory motion (such as due to normal vibration or earthquakes).

Applicants maintain that the final Board concern (i.e., that the U-bolts sampled may have been torqued pursuant to a construction procedure issued on October 8, 1982 which may have differed from previous construction practice) also provides no support for its action. As Applicants stated in their November 19, 1984 response to CASE's Motion, the construction practice for torquing Unit 1, common and Unit 2 U-bolts was the same. The October 8, 1982 procedure referenced by the Board (and CASE) was written at the suggestion of the NRC resident inspector at that time (Robert Taylor) to document the construction practice which had been and was currently being used to torque U-bolts. Affidavit of J.C. Finneran at 2 attached to Applicants' Reply to CASE's Motion Concerning Information Regarding Cinching Down U-Bolts (November 19, 1984) ("Finneran Affidavit of November 19, 1984").

In this regard, Applicants have reviewed construction packages associated with the sampled U-bolts and have identified 43 of the appoximately 160 U-bolts sampled which were torqued prior to October 8, 1982 and not retorqued subsequent to the sample.[8] (Installation of pipe supports in Unit 2 began in late

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8 The construction packages of 122 of the approximately 160 U-bolts sampled were reviewed. (Applicants limited their review to construction packages which were readily retrievable.) The date checked in each package was the date of final QC acceptance of the associated support's initial installation. (In that QC acceptance occurs after a U-bolt is torqued, other U-bolts sampled may have been torqued

(footnote continued)

1977 and continued concurrent with pipe support installation in Unit 1 until late 1983 when virtually all of the Unit 1 pipe support installation was completed.) The torque values of such U-bolts are basically in the same range as those torqued after this date. Accordingly, there is no merit to the position that construction practices regarding torquing U-bolts were different for Unit 1 and Unit 2.[9] Attached Affidavit of Iotti and Finneran at 3-4.

From the foregoing, Applicants maintain that their sampling was sufficiently representative or random for its intended purpose. While we believe that the facts regarding this issue do not warrant a reopening of discovery, in view of the Board's belief that this issue "reflects adversely on the credibility of Applicants' expert witnesses" (Memorandum at 2), Applicants would welcome additional discovery on the sampling performed to clear up the issue of credibility. (It should be noted that the

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(footnote continued from previous page)
prior to October 8, 1982 and not inspected until after this date.) Further, the packages associated with the 43 U-bolts torqued prior to October 8, 1982, were checked to assure that subsequent modifications had not caused the U-bolts to be retorqued. Attached Affidavit of Iotti and Finneran at 3, n.3.

9 Based upon discussions with crew foremen, many of the same crews that torqued Unit 2 U-bolts also torqued Unit 1 U-bolts. In this regard, the vast majority of the construction packages of sampled U-bolts reviewed stated the construction foremen whose crews installed the support (and, by practice, torqued the U-bolts). Of the 45 construction foremen mentioned in the 122 construction packages reviewed, 28 still remained at CPSES. All but 3 of the 28 foremen stated that their installation crews worked in both Unit 1 and Unit 2. Attached Affidavit of Iotti and Finneran at 4, n.4.

information giving rise to this issue was provided by Applicants in response to a Board question and would have been provided on discovery if the intervenor had requested it.)

As a final note, Applicants are troubled by the position the Board took concerning this issue. While Applicants provided sworn and unrefuted statements which reflected that the U-bolts sampled were essentially identical in make, manufacture and sizes, and were torqued using the same construction practices as the Unit 1 and common U-bolts, the Board somehow determined that Applicants were wrong. Significantly, the Board did not state that Applicants' sampling had been called into question and more information was needed; rather the Board stated "[i]t now appears, however, that there is no sense in which the sample was representative or random." Memorandum at 2. Applicants do not see how this tribunal could arrive at such a conclusion based upon the evidence before it. This finding has no support in the present record, is clearly erroneous, is extremely prejudicial to Applicants, and should be withdrawn.

C. A36/A307 Steels

The Board states (Memorandum at 4) that it is concerned with the "reliability of Applicants' testimony" because of an apparent inconsistency between statements by Applicants' witnesses regarding the relationship between A36 and A307 steels. The Board also concludes that Applicants "intentionally" withheld certain information regarding this matter in their response to the Board's

previous inquiry and that certain other information was not provided (Memorandum at 4-6). In view of the Board's concerns, Applicants have examined the portions of our filings cited by the Board. We agree that in certain respects those filings should have been more precise and require correction. Accordingly, we provide additional information below and commit to reexamine our motions for summary disposition to assure the complete accuracy of those submittals.

However, the Board's remaining conclusions that Applicants' intentionally withheld information or otherwise failed to provide material requested by the Board are unfounded. As we discuss below, Applicants did not intentionally "avoid" providing any information to the Board. Indeed, most of the information the Board contends was not provided in fact was included in Applicants' response. To the extent the Board has identified information which was not provided but which it believes should have been, we have supplemented our prior response.

Before addressing the Board's assertions in its Memorandum, Applicants would like to comment on the process the Board has followed in seeking this information. As the Board is aware, the parties agreed to a procedure by which the Board would attempt to reach a decision on pipe support design issues on written filings. Consistent with this approach the Board indicated that it would also seek clarification of matters in writing as it reviewed

Applicants' submittals.[10] Consequently, the Board has requested information, in writing, regarding several matters.

However, this process has its limitations. The Board may have particular concerns based on its independent understanding of a particular topic and seek to frame an inquiry to obtain information it believes will answer its concern. For any one of several reasons such inquiries may be unclear or Applicants may misconstrue the Board's intent. In fact, Applicants have sought clarification from the Board on several occasions because of this.

Thus, there may be occasions when Applicants' responses may not fully satisfy the Board. Applicants submit that when such a situation arises the Board should be prepared to seek further clarification or additional information. If the Board had been pursuing its questions orally, at a hearing, it would be relatively easy for the Board to clarify its intent and to redirect Applicants' response by following up questions on the spot. Pursuing detailed technical question in written filings does not lend itself to such prompt clarification.

In these circumstances, it is simply unfair to charge Applicants with intentionally withholding information if the Board is not fully satisfied with Applicants' response. Accordingly, we ask that the Board be cognizant of the difficulties inherent in this process and pursue a fair and balanced approach in pursuing its questions. At a minimum, this should entail a willingness to

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10 Memorandum and Order (Written-Filing Decisions, #1: Some AWS/ASME Issues), June 29, 1984, at 2-3.

follow up its questions rather than presuming Applicants purposely did not provide sufficient information to respond to the Board's request. The Board also should recognize the inherent impracticality in Applicants being held to a standard that requires it to anticipate the inquiries of others and to provide every shred of evidence that others may deem to be important, regardless of its significance, related to a particular subject. The resulting volume of material if such an approach were followed would be very burdensome on the Board and the parties without any counterbalancing safety benefit.

Turning to the Board's discussion of Applicants' response regarding A36 and A307 steels, we first address the Board's discussion regarding an apparent inconsistency in Applicants' position. Applicants agree with the Board that the statements cited by the Board are inconsistent. We apologize for that inconsistency and assure the Board that there was no intent to mislead.[11] Applicants also regret not having recognized this inconsistency in the first instance. We assure the Board that if we had we would have promptly notified the Board and parties.

In any event, Applicants have now examined the record to identify other instances where we have testified regarding these

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11 The two statements which the Board compares are (1) a footnote in the affidavit accompanying Applicants' motion for summary disposition regarding cinching of U-bolts (at 5, n.3) and (2) the affidavit accompanying Applicants' response to the Board's request for information regarding the composition of A36 and A307 steels (at 2).

steels (Affidavit at 4).[12] Generally, Applicants have addressed this matter in the context of correcting CASE's assertion that the material for certain components (U-bolts, Richmond Insert bolts) was A307. Applicants pointed out that the material was not A307, but A36, although adding, in effect gratuitously, that the materials were "equivalent" or "essentially equivalent." More importantly, none of our conclusions needs be altered in light of this new information, including our representations that CASE's arguments regarding these materials are in error. Thus, our comments were not even material to the issues being addressed.[13]

As noted above, any implication from Applicants' previous statements that A36 and A307 are the same materials are technically in error. As described in our response to the Board's inquiry regarding these steels, the material specifications for these materials are not the same. Applicants' prior statements were premised on what we now find to be a commonly held

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12 See also Applicants' Motion for Reconsideration of Memorandum and Order (Quality Assurance for Design), January 17, 1984 (at 28), and Applicants' Reply to CASE's Proposed Findings of Fact and Conclusions of Law (Walsh/Doyle Allegations), September 6, 1983 at 8.

13 Applicants do not wish to suggest that such inconsistencies are excusable. Applicants have been abundantly careful to assure that our testimony is accurate. We cannot assure, however, that no errors will ever occur. When we discover such errors, we have been careful to notify the Board and parties promptly. We are highly confident that no significant errors exist. Nonetheless, we have decided to review our affidavits submitted pursuant to our Plan to determine whether there may be other instances in which our representations may not be accurate. We will report to the Board and parties if our review reveals any other matters of significance.

conception, which we discuss below, that these materials are equivalent. We present below additional information which we hope will clarify this matter once and for all.

As Applicants explained in their response to the Board's inquiry, A36 and A307 are not the same material in that specifications for their mechanical properties are different. Further, as discussed in the attached Affidavit, the specifications governing their chemical compositions are also different, although not mutually exclusive. Thus, the materials should not be considered to be the same. However, in certain respects they are for practical purposes "equivalent." In some circumstances, by specification and/or ASME design requirements, steels designated as A36 or A307 must have the same mechanical properties and chemical composition. For instance, when utilizing non-headed anchor bolts for structural anchors (as Applicants employ as the bolt in Richmond inserts), the A307 specification requires that A36 material be employed. Consequently, for non-headed bolts used as structural anchors the materials are, by specification, "equivalent."[14] Further, the ASME has established requirements that provide that SA307 material used as bolting material satisfy the chemical and mechanical requirements for SA36 steel. (Affidavit at 5-8.) In short, these circumstances appear to have contributed to a common conception that the materials are equivalent. Dr. Iotti's and Mr.

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14 Similarly, the A36 specification requires that headed bolts used for anchorage purposes are to conform to the A307 specification.

Finneran's earlier comments were based on that belief, shared by themselves and persons working for them, whom they originally consulted. Id.[15] Their personal research into the matter has disclosed the differences between the materials, as described above and in their reply to the Board's inquiry.

We address below the Board's remaining comments as to Applicants' response concerning A36 and A307 steels. As we demonstrate, the Board's assertions are not valid and provide no basis for permitting unlimited discovery at this late stage of the case. We ask that the Board modify its Memorandum to correct the errors pointed out below. With respect to the Board's comment that Applicants intentionally avoided displaying "in clear language or tables" the information sought by the Board (Memorandum at 4), Applicants disagree. The Board stated in its Memorandum that the purpose of its request for information was to ascertain whether the materials used in Applicants' tests were representative of the materials in the field. Applicants' entire response was formulated to provide the Board with that information and we believe we did so. Because the important consideration for determining that representativeness is the relative mechanical properties, Applicants' response focussed on those properties. (Affidavit at 5-6.) Applicants assembled data regarding the properties (yield and ultimate strengths) of

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15 Applicants believe that the Staff also has suggested that these materials are equivalent in some respects. However, we have identified only an indirect statement to that effect in the record (Tr. 6449).

materials in the field (Applicants' December 5, 1984, Response to Board Inquiry Regarding A36 and A307 Steels at 4-5) and established distribution curves from that data (Response, Figures 1 and 2). Applicants noted on those figures the material properties of the samples used in the tests conducted in support of our motions for summary disposition (Response at 4, Figures 1 and 2).[16] Applicants did not at all intentionally withhold information. We believe the information we provided fully responded to the Board's stated concern. If the Board believed otherwise, for the reasons discussed above, it would have been more appropriate to request additional information. We ask that the Board modify its Memorandum, consistent with the above comments.

The Board next states that Applicants did not address the variability of A36 steel composition (Memorandum at 5). Applicants agree. However, Applicants considered the thrust of the Board's concern to involve material considerations relevant to the design issues. As discussed in the attached affidavit of Dr. Iotti and Mr. Finneran (at 5-6), because the actual chemical makeup of the steels is not itself relevant to those design issues we did not pursue that avenue. We provided the information which was relevant to the Board's stated concern,

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16 Applicants infer from the Board's comment, however, that it does not understand the figures provided in Applicants' original response. Accordingly, we have supplemented those figures for clarification (appended to the attached affidavit of Dr. Iotti and Mr. Finneran as Figures 1A and 2A).

viz., mechanical properties. In any event, to provide the Board with information regarding the chemical makeup of those steels, we have included the ASTM Specifications for both A36 and A307 steels with the attached Affidavit. The specification for A36 includes several limitations on the chemical composition of A36 steel. The specification for A307, however, places limitations only on two chemicals, phosphorous and sulfur. Thus, the actual chemical compositions of these steels are not necessarily similar. (Affidavit at 6.) Again, however, this data is not relevant to the Board's stated concern.[17] As previously noted, it is the material properties of the steel which govern the design considerations at issue and which were provided to the Board in Applicants' response.

Further, the Board states that Applicants did not state directly "how the test samples compared to steels in use at the plant" (Memorandum at 5). This comment is incorrect. We provided the pertinent data, displayed graphically, which set forth the requested comparison, and described those graphs and how we

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17 The Board later states that Applicants' tests related to friction, stiffness, relaxation and creep, characteristics the Board believes are not readily ascertainable from data on yield and tensile strength (Memorandum at 5). It is not clear what point the Board seeks to make by this comment. The Board certainly did not raise this point in its original request. Thus, this matter provides no basis for the Board's comments regarding the adequacy of Applicants' response. Nevertheless, the Board apparently has inferred that absent additional information it is not possible to draw conclusions regarding the representativeness of steels in the field with respect to these properties. Accordingly, Dr. Iotti and Mr. Finneran provide additional information regarding this new question in the attached affidavit.

obtained that data in the text of our response (Response at 4-5, Figures 1 and 2).

The Board next notes, correctly, that some materials in the field may have yield strengths less than the samples used in the Westinghouse tests.[18] The Board apparently believes (as it indicates in a subsequent comment regarding tensile strengths) that it was not given information to ascertain the significance of that fact. To the contrary, Applicants not only acknowledged this fact (Response at 9), we demonstrated that this possibility (we quantified the probability of such a situation occurring both with respect to yield and tensile strengths) did not alter Applicants' conclusions in the pertinent motions for summary disposition (Response at 9-11). Further, the Board asserts that "there is no data in our record" concerning the representativeness of the Westinghouse samples. Again, to the contrary, that data was provided directly on Figures 1 and 2 for each of the five rods (three rod sizes) utilized in the test. Likewise, the Board's claim that there is no data regarding "the statistical error of the sample" is erroneous. Applicants provided that information in Figures 1 and 2, which included the standard deviations for both distribution curves. In the attached affidavit we provide some additional information regarding the standard deviations for these curves to clarify this matter for the Board (Affidavit at 13-14).

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18 As the Board is aware, actual materials in the field will all have yield strengths equal to or greater than the specified minimum values.

In addition, the Board states that Applicants failed to respond fully to the Board's concern regarding the representativeness of U-bolt configurations used in the tests. Again, the Board, with no evidence to support its determination regarding Applicants' state of mind, accuses Applicants of intentionally omitting this information. (Memorandum at 5-6.) The Board's accusations regarding Applicants' intentions are unfounded.

We assure the Board that our intention was to provide the Board with the information necessary to satisfy its concerns. We object to the Board's wholly unfair and unfounded implication that Applicants intended to conceal requested information. Applicants have sought to be fully responsive to the Board's very frequent requests for information and additional evidence. In fairness, the Board must acknowledge that its requests are sometimes not clear and concise, and that this has lead to confusion in the past. Further, the Board must also acknowledge that the use of written filings to resolve Board questions (particularly in view of the Board's attention to detailed follow-up) is not always conducive to the prompt clarification/interaction that is achievable in the oral hearing context. Thus, to make this process work, the Board must recognize this possibility and be willing to seek clarification or follow-up its inquiries as would be done in the hearing context.[19] Indeed, as already demonstrated above, most of the

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19 The Board has followed this approach in the past. Applicants believe such would clearly have been more

(footnote continued)

Board's questions simply required clarification of or directing the Board to points already made in our filing.

With respect to the Board's particular question regarding "the extent to which the U-bolt "configurations" in the plant are the same as those tested" (Memorandum at 5-6), Applicants agree that we did not pursue that matter in detail in our original response. Applicants did correct (Response at 5-6) the Board's statement (Memorandum (A36/A307) at 2, n.2 (continued)), that the description in the affidavit accompanying our motion for summary disposition regarding U-bolt cinching concerning variations between dimensions used in a test configuration and those used in a finite element analysis was deficient without a description of the "variation in dimensions within the plant."[20] However, Applicants did not interpret the Board's comment that there was "no mention of the extent of their representativeness of the dimensions of U-bolts used at the plant" to obligate Applicants to provide further detailed information on this point, particularly given the stated purpose of the Memorandum -- "Information on Composition of A36 and A307 Steel" -- and that

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(footnote continued from previous page)
appropriate in this instance given the number of questions the Board has regarding this matter.

20 The Board's characterization of our response to this particular concern as indicating a "lack of attention to our language" is unfounded. Applicants responded to the Board's stated concern in the see also citation by describing the correc scope and purpose of the discussion referenced by the Board and demonstrating that, contrary to the Board's assumption, the discussion did not concern nor was it relevant to "dimensions in the plant."

the portion of Applicants' motion cited by the Board already expressly stated that components used in the tests were taken directly from Comanche Peak to assure the test configurations would simulate as closely as possible actual field configurations. In short, the Board's criticism of Applicants is unfounded. Nevertheless, we provide information regarding the representativeness of test configurations and dimensions in the attached affidavit. (Affidavit at 11-13.) As can be seen in that affidavit, much of the information to respond to this concern is already contained in the record.

In sum, the Board's criticism of Applicants' response to the Board's inquiry concerning A36/A307 steels is unfair. Applicants provided virtually all the information the Board contends was not included in our response. Applicants did not intentionally withhold or seek to conceal information as the Board suggests. In these circumstances, the appropriate action would have been for the Board to request that Applicants clarify or supplement their response, rather than publically criticize Applicants and attack witnesses personally, and to use these unfounded conclusions as a basis to reopen discovery on an unlimited basis. We ask that the Board modify its Memorandum consistent with the above comments, and find that this matter does not support reopening unlimited discovery.

D. Cross-Examination Regarding Industry Practice

The Board identifies what it describes as "other changes in position that are hard to understand" (Memorandum at 6). In this

regard the Board first discusses various on and off-the-record discussions of "industry practices." In this discussion the Board improperly concludes that an off-the-record statement by an NRC Staffer establishes "facts" regarding one industry practice, and mischaracterizes the substance of an on-the-record discussion regarding another industry practice. The Board also incorrectly describes the procedural posture of the case surrounding Applicants' cross-examination of a CASE witness. (Memorandum at 6-7). As discussed below, none of the matters addressed by the Board in this portion of its Memorandum constitutes a "change in position" or provides any basis for reopening discovery.

The Board first mischaracterizes the circumstances under which Applicants came to cross-examine CASE's witness. At page 6 of its Memorandum the Board states, as follows:

> At Tr. 9881, Applicants' attorney insists on cross-examining Mr. Doyle, who had been examining Cygna's witness. Despite the lack of orthodoxy in this suggestion, the Board granted the request.

The suggestion that Applicants somehow acted improperly in this instance is wholly inappropriate.[21] In the first instance, any lack of "orthodoxy" was of the Board's own doing. The Board (not Mr. Doyle, as the Board states) was questioning Cygna's witnesses for several transcript pages, when the Board Chairman turned to Mr. Doyle and asked whether it was his "previous testimony" that it was not industry practice to cinch U-bolts. Mr. Doyle agreed,

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21 To assist in the reader's understanding of the transcripts referenced by the Board in its Memorandum and discussed herein, we have attached those pages.

and the Board continued questioning Cygna regarding its understanding of industry practice. (Tr. 9876.) It appears (and it was Applicants' understanding at the time) that when the Board referred to "previous testimony" it was referring to points raised by Mr. Doyle in his cross-examination of Cygna the previous day when he questioned Cygna regarding the manufacturers' intended use of U-bolts (Tr. 9800-02). When the Board completed its questioning, Applicants' counsel noted that the Board's acceptance of statements of the cross-examiner as "testimony," without having afforded Applicants an opportunity to cross-examine that individual, created a "serious problem." Apparently agreeing with Applicants' concern with the obvious due process implications (and resulting prejudice to Applicants) such a procedure created, the Board invited Applicants to question Mr. Doyle at that point regarding his "testimony." (Tr. 9881.) Thus, Applicants properly presented a valid objection to the consequences of the unorthodox procedure the Board was following. The Board appeared to agree with Applicants and suggested Applicants cross-examine Mr. Doyle at that time in order to cure the problem created by the Board's process.

In sum, the Board's criticism of Applicants for doing no more than properly defending their rights is unfounded. The Board's position is particularly troubling because of the obvious prejudice to Applicants' rights the Board apparently fails now to acknowledge. We presume the Board did not intend to adopt such a

position. Accordingly, we ask that the Board strike this portion of its Memorandum.[22]

Further, the Board also improperly accepts as "fact" a statement by a member of the NRC Staff in an informal, i.e., non-evidentiary, meeting with Applicants that cinching of U-bolts is not industry practice. In the first instance, in the discussion to which the Board refers Applicants expressly disagreed with the Staff. Neither Applicants nor the Staff significantly expounded on the bases for their positions. Thus, even if one accepts the statements in that meeting as evidence (as the Board legally cannot but apparently has), it is not "clear," as the Board suggests, that the use of cinched U-bolts is unique to Comanche Peak. More importantly, however, the Board's reliance on an extra-record, unsworn statement, untested by cross-examination, to support the conclusions in its Memorandum deprives Applicants of their due process right to challenge adverse testimony.[23] Further, because the Staff's statement is

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22 We find stunning and object to the characterization of Applicants' cross-examination of Mr. Doyle as an "attack" on his knowledge of industry practice. Applicants have the right to cross-examine alleged experts regarding the basis for their opinions. Applicants were doing no more than exercising this right. Indeed, the Board appeared to have accepted this fact at the time (Tr. 9887), and certainly at that time found no fault in Applicants' cross-examination.

23 This situation illustrates the danger and due process implications in providing the Board, as the objective trier of fact, with extra-record material that can unduly influence the Board in its decisionmaking process. It is a situation created most frequently by the NRC Staff's policy regarding "Board Notifications" and the filing, ex parte in camera, of OI reports. The Board has rejected this latter

(footnote continued)

not sworn or otherwise submitted as evidence, it represents at best an informal conclusion of one person at that point in time and not a final evidentiary position of the Staff as a party, on which the Staff intends to rely. Applicants need not even respond to such assertions unless and until the Staff takes such a position in an evidentiary submittal.[24] Thus, the Board's conclusion that "Applicants should have known that [the industry practice propounded by the Staff] at the earlier date and should have refrained from taking a position contrary to the facts" (Memorandum at 6) not only is incorrect but is unfair and prejudicial to Applicants. The Board should, therefore, strike that portion of its Memorandum.

The Board's final point regarding "industry practice" concerns a discussion by one of Applicants' witnesses (Mr. Reedy) in the May 1983 hearings. The Board represents that Mr. Reedy testified about "an alleged industry practice"[25] as to which it

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(footnote continued from previous page)
policy regarding OI reports, apparently due at least in part to a concern for the potential for undue influence.

24 Applicants continue to disagree with the Staffer's view. However, we will await a final and formal Staff position before taking any further action on this issue.

25 The implication of the Board's discussion is that Mr. Reedy was addressing the same industry practice under consideration in the Memorandum, viz., cinching of U-bolts. As discussed above, however, the "industry practice" discussed by Mr. Reedy concerned a wholly different matter. Whether or not the Board intended to leave such an impression, we believe that a reader not having the benefit of time or access to the record to review the Board's citations would have logically concluded that the Board was discussing the same "industry practice." Indeed, counsel as well as
(footnote continued)

was learned "on cross-examination" that the "sole basis for his generalization was his knowledge of Comanche Peak. Tr. 6905-31, especially 6921-22 . . . 6930-31 . . . ." The fact is that Mr. Reedy's testimony related to industry practice concerning a general method of analysis. Mr. Reedy was addressing an assertion by CASE that a very detailed analysis of a particular support configuration (Richmond insert through a tube steel member) should be performed. It was Mr. Reedy's testimony that it was not industry practice or a requirement of the ASME Code to perform such detailed analyses. Rather, Mr. Reedy pointed out that the philosophy of analysis in support design reflected in the ASME Code relied on relatively large factors of safety without highly detailed analyses, whereas the type of analysis CASE advocated was more appropriate for the aerospace industry where very small factors of safety are employed. (See Tr. 6905-6922 (page numbers 6906-09 were not used in the transcript.) Mr. Reedy readily acknowledged that he was not addressing the industry practice regarding the use of the specific configuration being discussed, but rather the philosophy of analysis under the ASME Code.[26]

(footnote continued from previous page)
Applicants' personnel believed that was the Board's intent although recognizing it was not explicitly stated. In these circumstances, and for the reasons discussed above, Applicants request that the Board strike this aspect of its Memorandum.

26 The following discussion (which is from the transcript the Board focuses on) clearly shows the focus of Mr. Reedy's testimony:

(footnote continued)

In sum, the record is clear that the industry practice which Mr. Reedy addressed was a design philosophy, as to which Mr. Reedy's experience is undeniably extensive. Mr. Reedy never suggested and, in fact, promptly corrected CASE's impression that he was addressing an industry practice regarding the specific support configuration at issue (Tr. 6921-22). Accordingly, the Board should withdraw this entire discussion from its Memorandum.[27]

(footnote continued from previous page)

> JUDGE BLOCH: The logical question is, if you have only looked at them here, how do you know what industry practice is?
>
> MR. REEDY: Industry practice is the philosophy of analysis and the difference between aerospace and nuclear.
>
> JUDGE BLOCH: You are talking philosophical. You don't know what percentage of the industry would do the calculations Mr. Doyle suggests?
>
> MR. REEDY: I do not, I'm talking about an overall aspect of types of calculations for ASME, and my knowledge of the aerospace and their types of calculations, and the basic philosophical difference of the engineering approach in aerospace or in airplane design versus the approach in items that are designed to stay on the earth.

27 The final comment by the Board regarding Mr. Reedy's testimony was that he "evade[d]" Judge Bloch's question about industry practice by responding that he is a "registered professional engineer" (Memorandum at 7, citing Tr. 6930-31). The Board has incorrectly and unfairly characterized the referenced discussion. First, the comment to which the Board refers was volunteered by Mr. Reedy in response to a general statement of concern expressed by the Board Chairman to Applicants' counsel. Thus, Mr. Reedy did not "evade" a question as the Board states. Second, Mr. Reedy's comment concerned the level of training and experience required of engineers who certify support designs. He simply added that (footnote continued)

E. AWS/ASME Requirements

The Board's concern regarding this issue (Memorandum at 7) relates to testimony by Applicants as follows:

> WITNESS REEDY: I would like to point out that, first of all, AWS, AISC is not used for the design of this, and it is prohibited to be used for the design of an NF component. [Tr. 6264/13-25.]
>
> * * * * *
>
> WITNESS REEDY: What I'm talking to you about is the strength of material and those requirements which are in section 9, which has never had anything to do with AWS. [Tr. 6265/1-2.]

(footnote continued from previous page)
he met those criteria. (Tr. 6930-31.) Certainly Mr. Reedy's statement was not the flippant comment the Board suggests. Applicants submit that even if the Board considers Mr. Reedy's testimony not to be material or even relevant to the Board's questioning, the Board should limit its comment to such a finding. However, to attack Mr. Reedy's integrity by suggesting he was evasive or not open regarding his testimony is unfair and professionaly insulting. Applicants are particularly disturbed because this is the third time the Board has leveled unfounded attacks against Applicants' witnesses, twice against this witness (Memorandum and Order (Thermal Stress in Pipe Supports), July 6, 1983 at 8, n.3 (Reedy)). The Board subsequently withdrew its original comments (Memorandum and Order (Motion for Clarification on Thermal Stress in Pipe Supports), August 19, 1983 (Reedy)). The other attack concerns Applicants' witness, Mr. Vivirito. The Board subsequently conceded it should withdraw its comments (Memorandum and Order (Reconsideration Concerning Quality Assurance for Design), LBP-84-10, 19 NRC 509, 518-519 (1984) (The Board withdrew at Applicants' request a lengthy footnote concerning Mr. Vivirito's testimony which appeared in the slip opinion of its Memorandum and Order (Quality Assurance for Design), LBP-83-81, 18 NRC 1410, 1420 n.37 (1983)). Accordingly, Applicants request that the Board withdraw the entire discussion of this testimony in its Memorandum.

The Board takes the position that this testimony is inconsistent with latter uncited testimony of Applicants that "a few of the AWS code provisions pointed out by CASE are applicable to weld design at Comanche Peak." Memorandum at 7.

Applicants request that the Board provide the citations for testimony it views as being in conflict. In this regard, however, Applicants believe that the Board is confusing design requirements for an ASME weld (set forth in the ASME Code) and use of reference sources to include at times the AWS Code to meet such ASME imposed requirements. If this is the case, Applicants submit that this issue provides no support for the Board's position that discovery should be reopened.

F. Calculational Errors

The Board also refers (Memorandum at 7) to "instances of calculational errors and of mislabeling of tables," citing its December 1983 Memorandum and Order (Quality Assurance for Design), apparently as further evidence supporting its "concern about the reliability of Applicants' testimony" (Memorandum at 4). Applicants disagree that this calculational error supports the Board's concern. In the first instance, the Board fails to point out, as it did in its Memorandum and Order, that Applicants acknowledged that an error existed in those calculations (18 NRC 1410, 1440, n.129). Further, the Board apparently would hold Applicants to a standard of perfection to which it holds no other party. Given that some level of calculational error is expected

and is not alone significant[28] and that this error was, in fact, inconsequential,[29] the Board's reliance on this single example of a calculational error to support its conclusions is unreasonable.[30] Accordingly, the Board should strike this portion of its Memorandum.

G. Role of Independent Expert

The Board next asserts that it has had "conflicting representations" regarding the role of the independent expert in this proceeding. The Board concludes that "his role appears to have been limited in a way that precluded a meaningful independent review". (Memorandum at 7-8). Applicants disagree.

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28 See Pacific Gas and Electric Company (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-763, 19 NRC 571, 587-588 and n.68 (1984).

29 Tr. 6054 (Dr. Chen).

30 The Board also generally refers (Memorandum at 7, note 12) to the transcripts of meetings between the Applicants and the Staff, and an entire chapter of CASE's August 23, 1983, Proposed Findings. However, as we have already noted, reliance on the extra-record, informal meetings between Applicants and the Staff to support the Board's actions is improper. Further, use of CASE's Proposed Findings for this purpose is also improper. The Board acknowledges that it has not evaluated CASE's claims and, indeed, does not even indicate that it evaluated or accepted those assertions in its December 28, 1983, Memorandum and Order ruling on those issues. In fact, the Board only generaly refers to that portion of CASE's findings and does not even specify particular claims on which it relies. Applicants are entitled to fair notice of the basis for Board action (see Cincinnati Gas & Electric Company, et al. (William H. Zimmer Nuclear Power Station), ALAB-305, 3 NRC 8, 10-11 (1976)). Failure to provide such specification is prejudicial to Applicants' right to a fair hearing. Thus, the Board should strike note 12.

The first statement cited by the Board is that of Applicants' counsel, at Tr. 13,033. In response to a Board question regarding the role of Cygna vis-a-vis the review of Applicants' Plan, Applicants' counsel states, as follows:

> No, they are not an independent reviewer of our plant (sic - "Plan"). The professor who we are going to retain will perform that function.

This statement is simply a general comment regarding the role of Cygna in reviewing aspects of Applicants' Plan. As Applicants' counsel stated, Cygna was not asked to independently review the different aspects of the Plan (unless Applicants relied on tests or studies produced in the Plan to respond to Cygna's questions (see Tr. 13,034)), whereas the professor was asked to review all aspects of the reviews and analyses Applicants performed pursuant to the Plan. This comment certainly was not intended, nor should it be interpreted, to provide a definitive description of the role of the academic expert. Further, as discussed below, there is no inconsistency between this statement and the others cited by the Board.

The Board next refers to Applicants' report regarding the academic expert, filed November 9, 1984. Therein, Applicants noted that its expert reviewed "the basic engineering principles employed in the review and analyses set forth in Applicants' motions for summary disposition." The Board interprets this statement to mean the expert "did not review the details of Applicants' analysis of pipe supports affected by Walsh-Doyle

issues." We fail to see the Board's problem in this regard. In the first instance, the description of the expert's role in Applicants' Report is fully consistent with the role described in Applicants' Plan, where Applicants stated, as follows:

> In order to provide additional independence, Applicants intend to retain the services of an expert from the academic community who will be asked to review the basic engineering principles to be addressed in the Plan and to provide testimony to the Board. [Applicants' February 3, 1984, Plan to Respond to Memorandum and Order (Quality Assurance for Design) at 4.]

Applicants have been unable to identify any instance where the Board objected to that description of the expert's role, even though the Board commented on other aspects of Applicants' Plan. It is unfair for the Board now to criticize Applicants, nearly one year after the Plan was submitted. Further, the comment cited by the Board as being "directly contrary" to these statements (Memorandum at 8, n.13) is not at all contrary. The statement referenced by the Board reads, as follows:

> What we envision for the professor is as distinct portions of this plan are completed, and as we attempt to meet with Walsh and Doyle to discuss them, we also will provide that information to the professor for his independent review and analysis. [Tr. 9267/1-12.]

Again, this is not at all contrary to the other statements referenced by the Board.

In short, Applicants submit the Board has misinterpreted the cited statements. For this reason alone the Board should strike this portion of its Memorandum. Nonetheless, Applicants believe

there is even a more compelling reason (discussed below) for the Board to withdraw this aspect of its Memorandum.

The Board's decision to reopen discovery on an unlimited basis is unfair to Applicants. Further, the Board has apparently drawn conclusions regarding the acceptability of the academic expert's review without having heard any direct evidence regarding that review. Although the Board has requested such information, it has not yet been submitted to, let alone evaluated by, the Board. The Board's conclusions were, therefore, reached without the benefit of an evidentiary filing or hearing on the matter. Applicants submit that making such an adverse decision prior to affording Applicants a hearing on the subject is premature and inconsistent with Applicants' right to administrative due process.

Applicants do intend to submit the information requested by the Board regarding the academic expert. We fully expect the Board will be satisfied regarding the nature and scope of that review. However, for the Board to reach any conclusion now regarding the acceptability of the review, and to base its decision to reopen discovery on such conclusions, is improper. Accordingly, the Board should strike this aspect of its Memorandum.

H. Scope of Cygna Review

The Board also reached several conclusions regarding the adequacy of Cygna's Phase III review, ultimately finding that

"there is no independent review of Dr. Iotti's and Dr. Finneran's findings" (Memorandum at 9). As shown below, the Board's conclusions are both premature and/or unfounded and, thus, provide no basis for the Board's decision to reopen unlimited discovery. Accordingly, Applicants urge the Board to strike this portion of its Memorandum.

In the first instance, the Board's conclusions regarding the adequacy of the Cygna Phase III review are premature and not founded on evidence of record. The method for adjudicating Cygna Phase III has not yet even been determined or scheduled.[31] Thus, no party has yet provided their opinion regarding the adequacy of Cygna's review. To draw the conclusions the Board has sua sponte, prior to the receipt of evidence on the issue, is inconsistent with Applicants' right to administrative due process. Applicants submit that only by striking this portion of its Memorandum in toto (and modifying its order as described later) can the Board cure the prejudicial effect of its action. In any event, Applicants also demonstrate below that the Board has so misconstrued the cited portions of the record that its conclusions, even if not premature and inconsistent with administrative due process, must be considered to be unfounded and striken on those grounds.

The Board first concludes that Cygna did not, but should have, independently pursued two matters, viz., self-weight

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31 See (Memorandum (Scheduling of Cygna Matters), November 7, 1984.

excitation and support stiffness (General Notes 7 and 8, Appendix J of Phase III Report), rather than adopted SIT findings on those questions (Memorandum at 8, 8 n.15). The Board also concludes that Cygna adopted this approach "apparently at Applicants' request" (Memorandum at 8).

Taking the second point first, the Board is simply wrong in concluding that Cygna took such an approach at Applicants' request. Applicants never requested that Cygna adopt the SIT findings in the Phase III review. Indeed, none of the the discussions in the transcript cited by the Board supports such a conclusion.[32] As for whether Cygna's ultimate conclusions regarding Applicants' practice with respect to self-weight excitation and support stiffness rely on the SIT conclusions, Applicants submit that it is not clear that such is the case. In

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32 The first reference (Tr. 13,033-34) concerns the need for Cygna to review Applicants' U-bolt tests. Applicants agreed that Cygna should (Tr. 13,034) and indeed, Cygna has reviewed Aplicants' tests, contrary to the Board's conclusion. (We also note that this cited portion of the transcript does not even suggest (although the Board states it is "clear" (Memorandum at 8, n.15)) that the reason Cygna was to review those tests was "in order to substantiate the acceptability of the SIT team acceptance of cinched-up U-bolts as a cure for stability problems".) Further, the Board also references (in its Memorandum at 8 ("see also" citation) n. 15)) several transcript pages which it contends "indicate some lack of clarity in the way in which Applicants and Cygna were defining Cygna's role." Applicants frankly see no "lack of clarity". At most, the referenced discussions indicate an evolving understanding (by both Applicants and Cygna) of what the Board thought should be included in Cygna's review and how that review should be structured in general, as well as its relationship to Applicants' Plan. No express mention is made of the relationship between Cygna and SIT.

addition, at a recent meeting with the NRC Staff, Cygna indicated that these two matters remained open (see Attached slides from Cygna presentation). Applicants intend to pursue the exact status of these matters, as well as other open items identified by Cygna at that meeting. The parties and the Board will, of course, be kept informed. In any event, the Board clearly erred in reaching a conclusion regarding this question at this time. To have relied on this conclusion to support reopening unlimited discovery is wholly improper and is unfair to Applicants. Accordingly, the Board should also strike this segment of its Memorandum.

The Board also concludes that "Applicants appear to have ignored" advice given by the Board regarding the manner in which Cygna was to conduct its review and structure its report in Phase III (Memorandum at 8-9). The Board does not specify the basis for this conclusion. Thus, Applicants cannot respond directly to the Board's charges. However, we do consider it unfair for the Board to reach such a conclusion without even having heard any evidence regarding Phase III. We are particularly disturbed because the Board appears to have already reached a conclusion regarding the adequacy of the Phase III Report, or at least important aspects of the Report, prior to receiving evidence on it. The implications for a fair hearing, in view of the Board's comments, are obvious. Accordingly, we also ask that this aspect of the Board's Memorandum be striken.

The Board's final conclusion regarding this matter is that it believes that in view of the concerns and conclusions previously expressed "there is no independent review of Dr. Iotti's and Dr. Finneran's findings" (Memorandum at 9). In the first instance, we have already demonstrated that the Board has prematurely drawn certain conclusions regarding Cygna's review. Thus, any decisions premised on those conclusions are also premature. Further, the Board apparently presumes that the Cygna review was itself an "independent review" of Applicants' findings presented in the motions for summary disposition. That is not Cygna's role. Only to the extent Applicants relied on the analyses performed pursuant to their Plan in order to respond to questions raised by Cygna in the course of their review would Cygna have reviewed those analyses. Applicants made this point clear early in the process (Tr. 13,034, 13,037-38). In addition, the independent review of Applicants' analyses was performed by the academic expert. Applicants note that those analyses were also subject to detailed scrutiny by both CASE and the Staff, as well as the Board's review. In short, those analyses (which themselves were an independent review of Applicants' design practices) have been subject to extraordinary independent scrutiny. The Board's conclusion to the contrary is, therefore, not only inconsistent with the process established by Applicants' Plan and apparently accepted by the Board, but with the facts.

Accordingly, Applicants submit this conclusion should also be striken from the Memorandum.[33]

I. Schedule for Discovery

The Board established in its Memorandum a schedule which could have Applicants' discovery responses due as late as February 21, 1985. This is over two months after the Board's ruling. Further, the Board should anticipate that the parties will file additional pleadings regarding information provided by Applicants. Even should the parties file such pleadings within two weeks of Applicants' responses, they will not be filed before March 1985. Applicants submit that imposing such a delay in the resolution of these issues, when discovery has already been taken for months regarding Applicants' motions, and particularly (as

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33 The Board's "compare" citation (Memorandum at 9) simply refers to the Board's recommendations in its December, 1983, Memorandum and Order (Quality Assurance for Design) regarding the nature of the independent review the Board urged be conducted. These recommendations certainly provide no basis for the Board to now criticize Applicants. Applicants submitted their Plan to respond to the Board's Memorandum in February, 1984, which was reviewed and commented upon by the Board and parties. Applicants supplemented their Plan in response to those comments in March, 1984. The Board did not suggest at that time that it found Applicants' Plan to be unacceptable. In fact, although recognizing that Applicants had not adopted all suggestions of the Board, the Board indicated that it believed the Plan would provide an adequate basis on which to assess the adequacy of Applicants' design process (Tr. 10,337-40). Thus, for the Board to suggest now, almost a year later, that procedures established by Applicants' Plan are inadequate because they do not comport entirely with the Board's original suggestions is grossly unfair. We ask that the Board not only strike this portion of the Memorandum but promptly clarify its position in this regard.

demonstrated above) with no sound basis for doing so, is unwarranted and inconsistent with the Board's responsibility to assure the fair and expeditious conduct of the proceeding (see Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 453 (1981). Accordingly, Applicants request that the Board modify its Memorandum to require that all discovery requests be filed by January 21, 1985 and any pleadings to be filed as a result of Applicants' responses be submitted no later than two weeks after those responses are received.

J. Scope of Discovery

As already explained above, the unlimited discovery the Board has authorized is wholly unwarranted. Indeed, the discovery provided for by the Board is without any bounds regarding any testimony ever presented in this proceeding. As the Board is aware, discovery in this proceeding has been extensive. With respect to Applicants' motions for summary disposition, CASE and the Staff have already had many months of discovery on all motions. Thus, totally reopening discovery now is wholly unwarranted.

Applicants firmly believe that adequate discovery should be afforded, consistent with the Rules of Practice. We have nothing to hide and have responded to reasonable and proper discovery requests throughout the proceeding, consistent with the Rules of Practice. As already explained, however, we believe further discovery in this instance is unwarranted.

Nevertheless, we do not oppose additional discovery on the nature of the sampling performed and relied upon by Applicants in support of our motions for summary disposition. We perceive this as an area which warrants further clarification for the Board and parties. We believe, however, that we have demonstrated that there is no basis to open discovery in the manner originally ordered by the Board.

IV. CONCLUSION

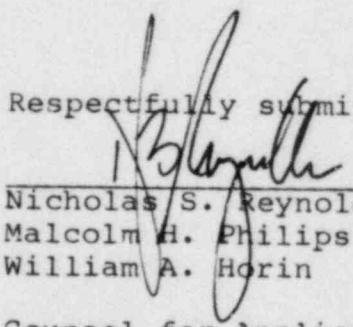
For the foregoing reasons Applicants move the Board, as follows:

(1) Modify the discussion in its Memorandum consistent with the above discussion to correct erroneous statements and conclusions;

(2) Limit reopened discovery to the nature of the sampling performed and relied on in Applicants' motions for summary disposition, and

(3) Direct that all discovery requests be filed by January 21, 1985.

Respectfully submitted,



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